



(11)

EP 0 776 011 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
19.11.1997 Bulletin 1997/47

(51) Int. Cl.⁶: **G11C 11/15**

(43) Date of publication A2:
28.05.1997 Bulletin 1997/22

(21) Application number: 96117870.4

(22) Date of filing: 07.11.1996

(84) Designated Contracting States:
DE GB NL

(30) Priority: 24.11.1995 US 562482

(71) Applicant: MOTOROLA, INC.
Schaumburg, IL 60196 (US)

(72) Inventors:

- **Chen, Eugene**
Gilbert, Arizona 85233 (US)
- **Tehrani, Saied N.**
Tempe, Arizona 85284 (US)

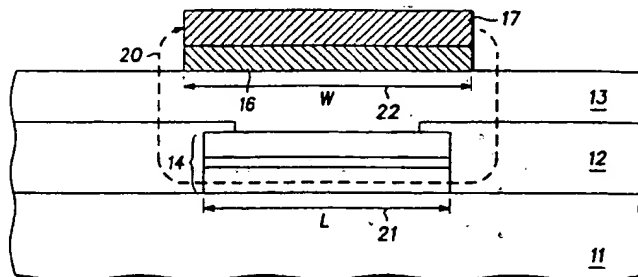
- **Durlam, Mark**
Chandler, Arizona 85226 (US)
- **Zhu, Xiaodong T.**
Chandler, Arizona 85226 (US)

(74) Representative:
Hudson, Peter David
Motorola,
European Intellectual Property Operations,
Midpoint
Alencon Link
Basingstoke, Hampshire RG21 7PL (GB)

(54) **Magnetic memory and method therefor**

(57) A magnetic memory utilizes a magnetic material to concentrate a magnetic field in a magnetic memory cell element. The magnetic material reduces the

amount of current required to read and write the magnetic memory.



10 **FIG. 1**

EP 0 776 011 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 96 11 7870

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US 5 173 873 A (WU ET AL.) * abstract * * column 2, line 41 - column 5, line 23; figures 1-3 *	1,6	G11C11/15
A	EP 0 248 355 A (HONEYWELL INC.) * abstract * * column 3, line 15 - column 14, line 35; figures 1-3 *	1,6	
A	IE.E.E. TRANSACTIONS ON COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY: PART A., vol. 17, no. 3, September 1994, NJ US, pages 373-379, XP000462470 BROWN ET AL.: "1 MB MEMORY CHIP USING GIANT MAGNETORESISTIVE MEMORY CELLS" * page 373, left-hand column, line 1 - page 376, left-hand column, line 15; figures 1-9 *	1,6	
<p>DOCKET NO: GR 98 P 2314 P</p> <p>SERIAL NO: 09/788,173</p> <p>APPLICANT: Schwarzl</p> <p>LERNER AND GREENBERG P.A.</p> <p>P.O. BOX 2480</p> <p>HOLLYWOOD, FLORIDA 33022</p> <p>TEL. (954) 925-1100</p>			<p>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</p> <p>G11C</p>
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 11 September 1997	Examiner Stecchina, A
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>			

EPO FORM 1503 (03.82) (P04C01)